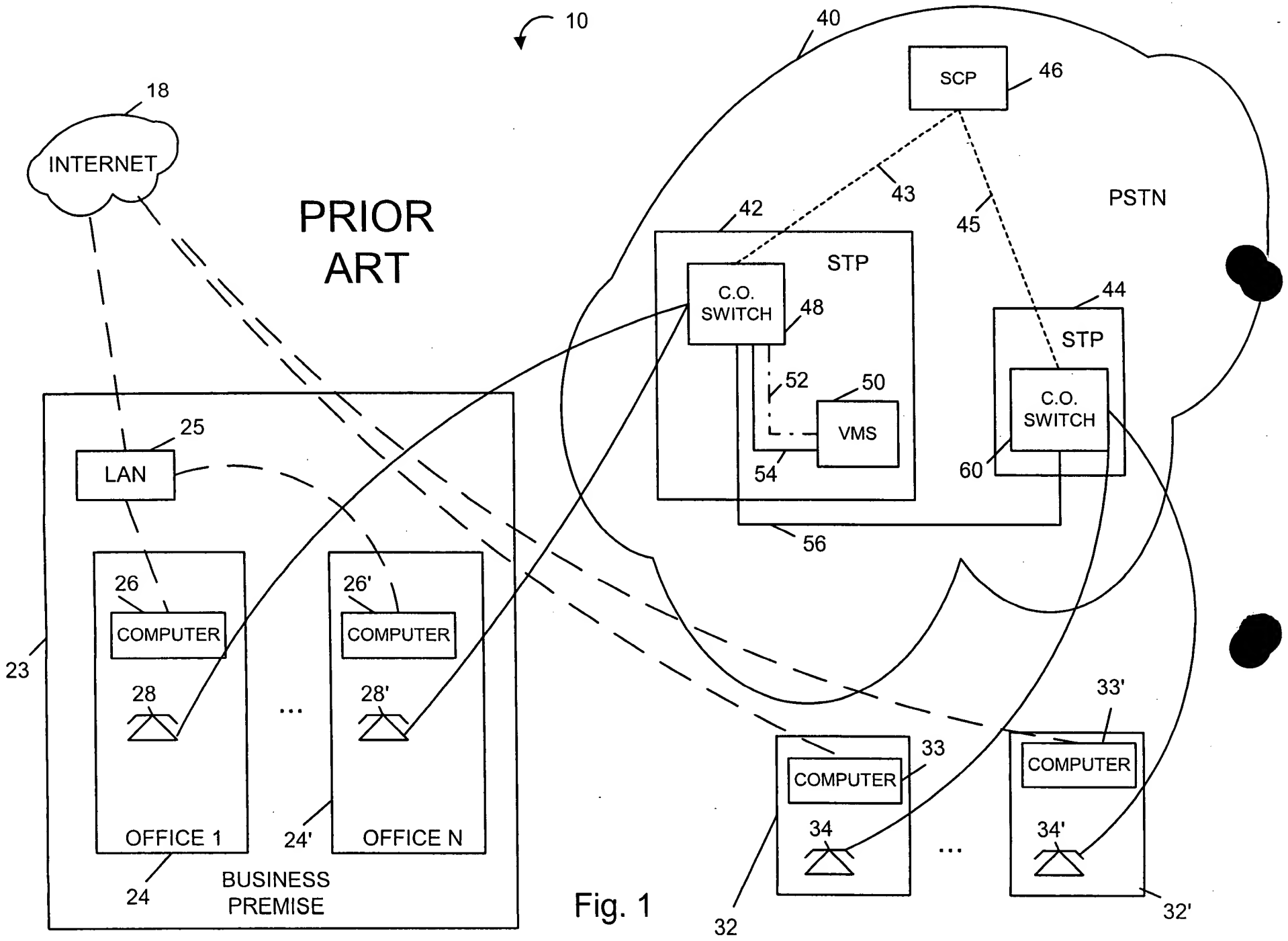

10
40
SCP
46
18
INTERNET
PRIOR
ART
43
PSTN
45
42
STP
C.O.
SWITCH
48
44
STP
52
50
VMS
C.O.
SWITCH
54
60
56
25
LAN
26
COMPUTER
26'
COMPUTER
23
28
28'
33'
33
COMPUTER
COMPUTER
34
34'
OFFICE 1
24'
OFFICE N
24
BUSINESS
PREMISE
32
32'

Fig. 1

Patent Application

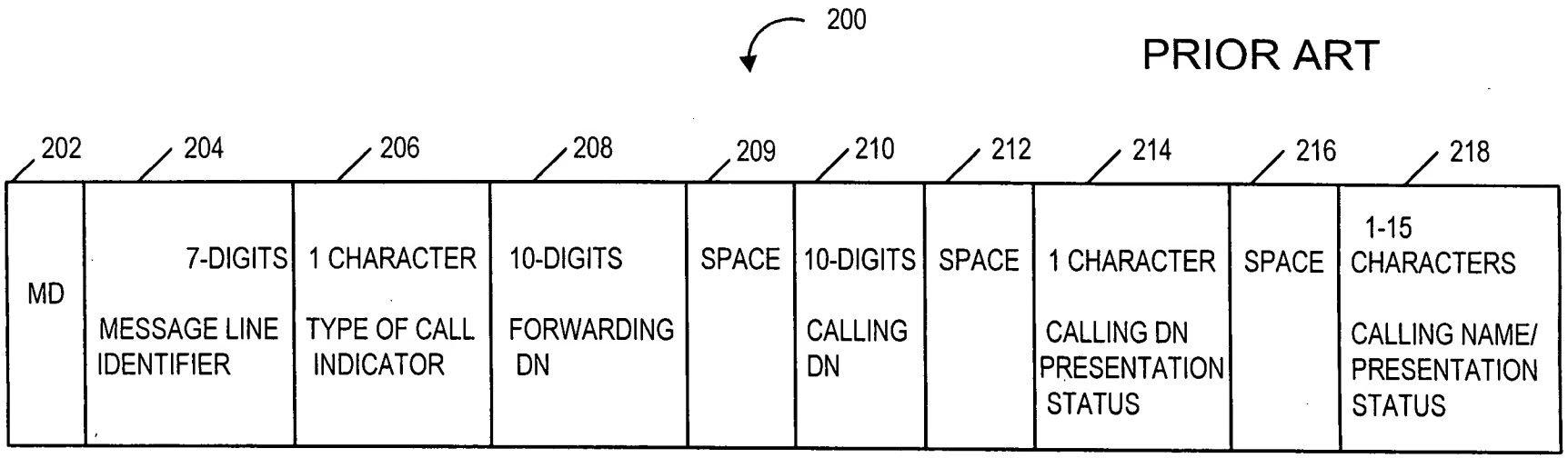


Fig. 2

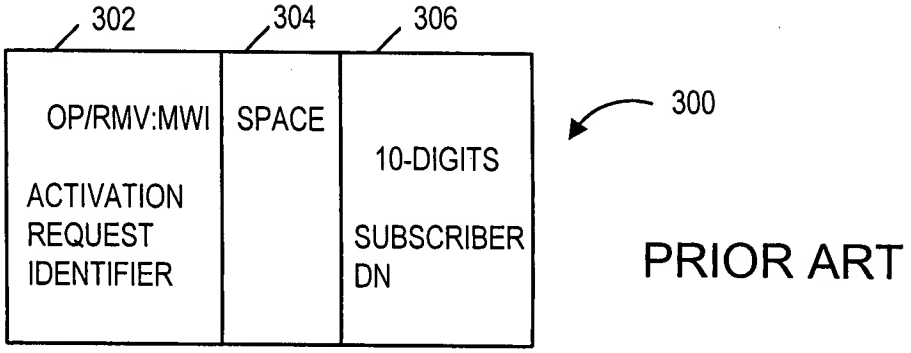


Fig. 3

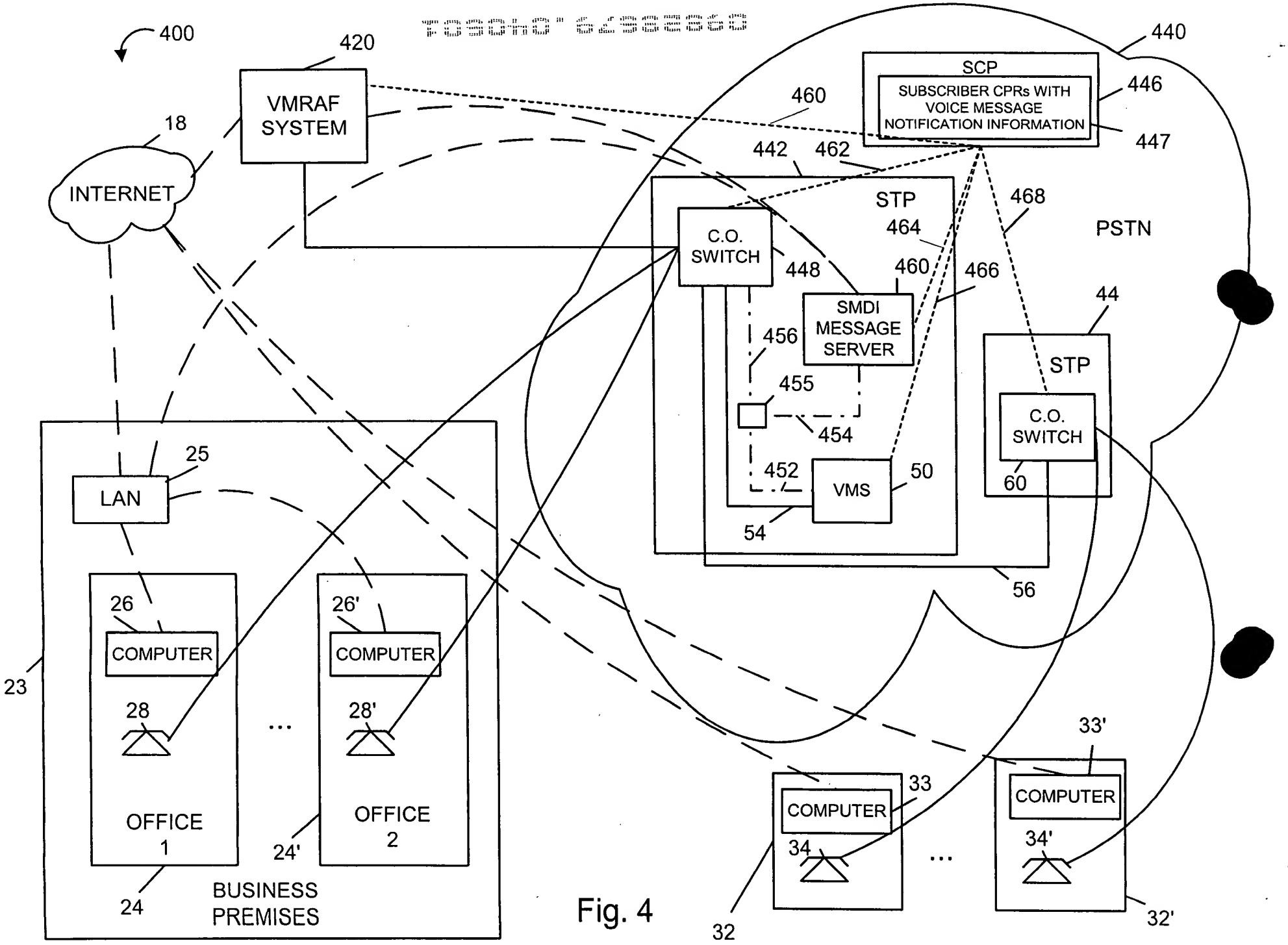

400
420
VMRAF SYSTEM
18
INTERNET
440
SCP
SUBSCRIBER CPRs WITH VOICE MESSAGE NOTIFICATION INFORMATION
446
447
460
442
462
468
PSTN
STP
C.O. SWITCH
448
464
460
466
SMDI MESSAGE SERVER
456
455
454
452
VMS
50
54
44
STP
C.O. SWITCH
60
56
25
LAN
23
26
COMPUTER
28
26'
COMPUTER
28'
OFFICE 1
24
OFFICE 2
24'
BUSINESS PREMISES
33'
33
COMPUTER
34
COMPUTER
34'
32
32'

Fig. 4

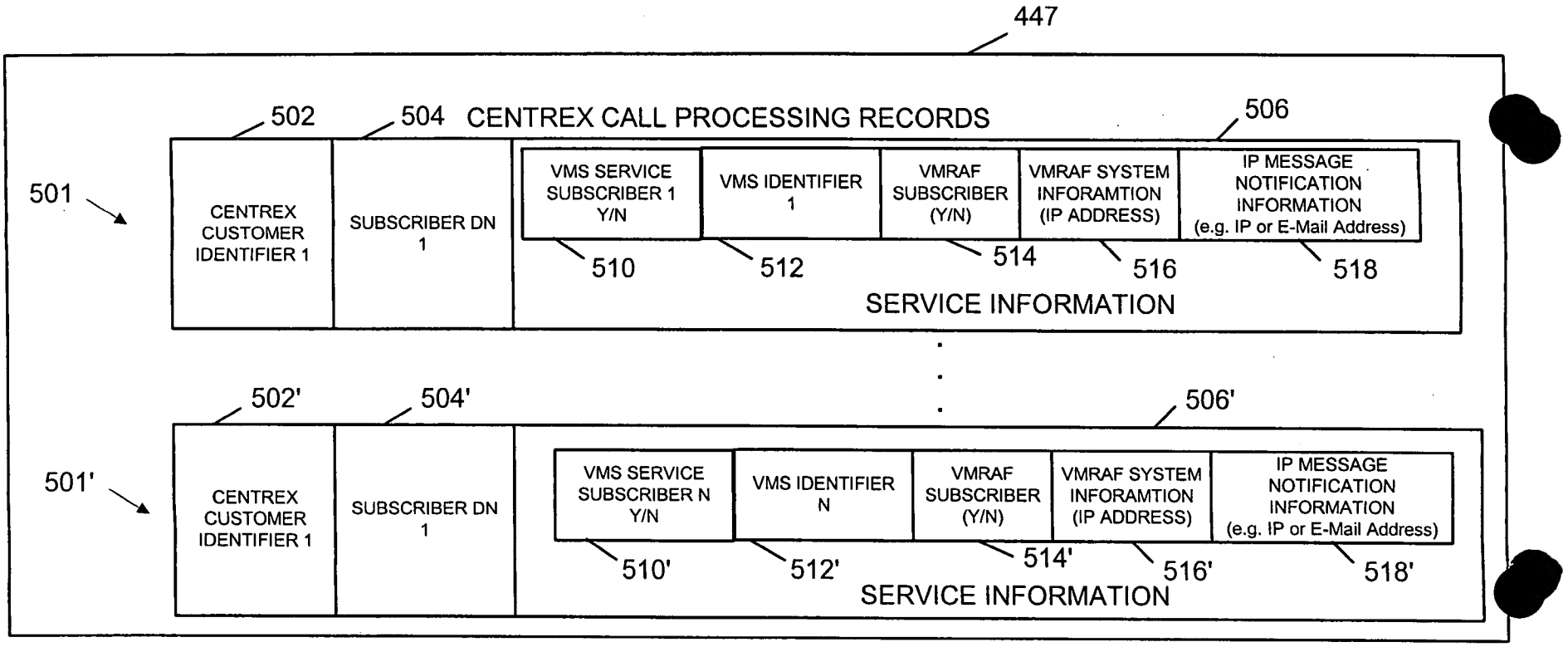

447
CENTREX CALL PROCESSING RECORDS
502
504
506
501
CENTREX CUSTOMER IDENTIFIER 1
SUBSCRIBER DN 1
VMS SERVICE SUBSCRIBER 1 Y/N
VMS IDENTIFIER 1
VMRAF SUBSCRIBER (Y/N)
VMRAF SYSTEM INFORAMTION (IP ADDRESS)
IP MESSAGE NOTIFICATION INFORMATION (e.g. IP or E-Mail Address)
510
512
514
516
518
SERVICE INFORMATION
502'
504'
506'
501'
CENTREX CUSTOMER IDENTIFIER 1
SUBSCRIBER DN 1
VMS SERVICE SUBSCRIBER N Y/N
VMS IDENTIFIER N
VMRAF SUBSCRIBER (Y/N)
VMRAF SYSTEM INFORAMTION (IP ADDRESS)
IP MESSAGE NOTIFICATION INFORMATION (e.g. IP or E-Mail Address)
510'
512'
514'
516'
518'
SERVICE INFORMATION

Fig. 5

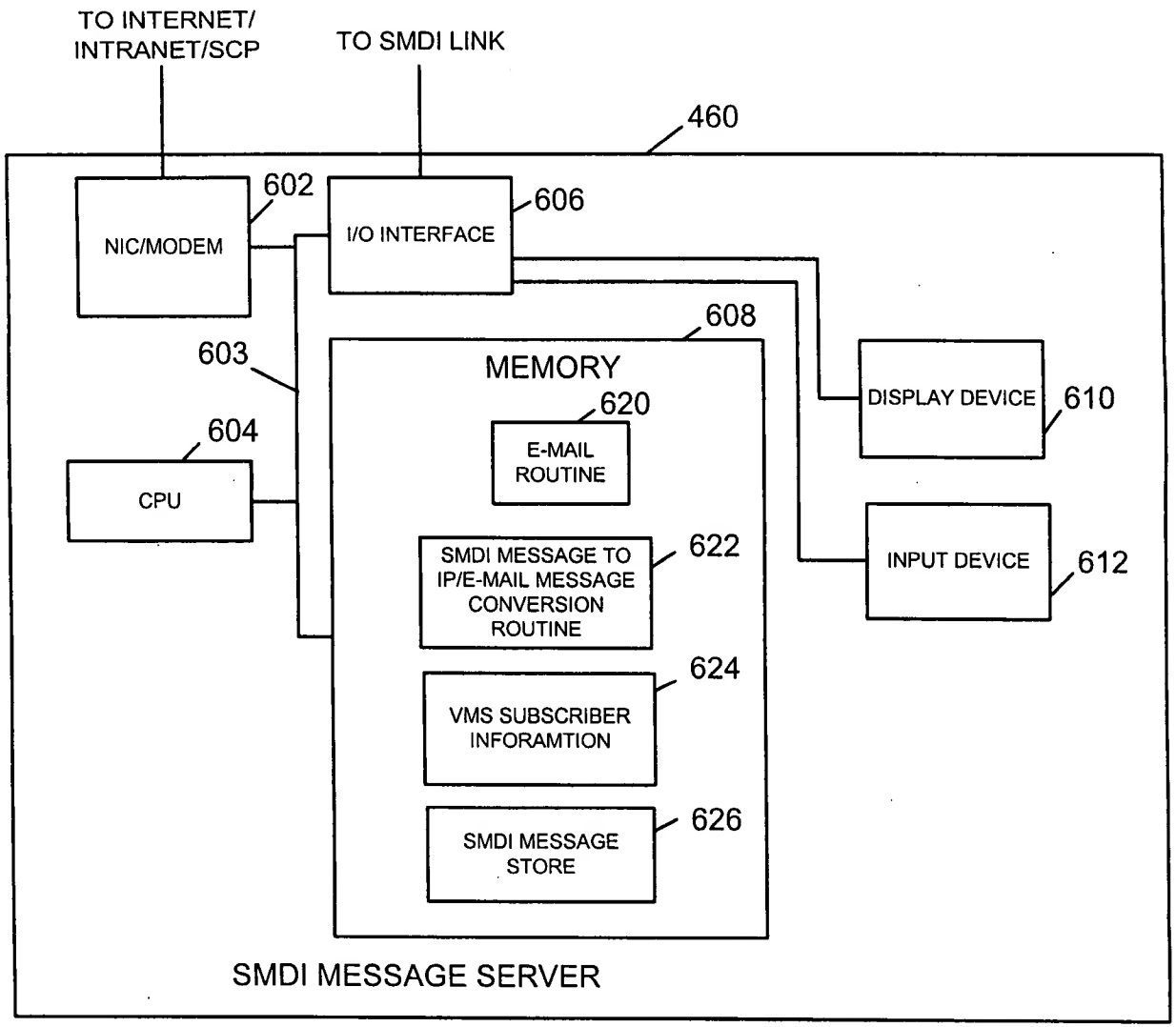

TO INTERNET/
INTRANET/SCP
TO SMDI LINK
460
602
NIC/MODEM
606
I/O INTERFACE
608
603
MEMORY
620
E-MAIL
ROUTINE
604
CPU
DISPLAY DEVICE
610
622
SMDI MESSAGE TO
IP/E-MAIL MESSAGE
CONVERSION
ROUTINE
INPUT DEVICE
612
624
VMS SUBSCRIBER
INFORAMTION
626
SMDI MESSAGE
STORE
SMDI MESSAGE SERVER

Fig. 6

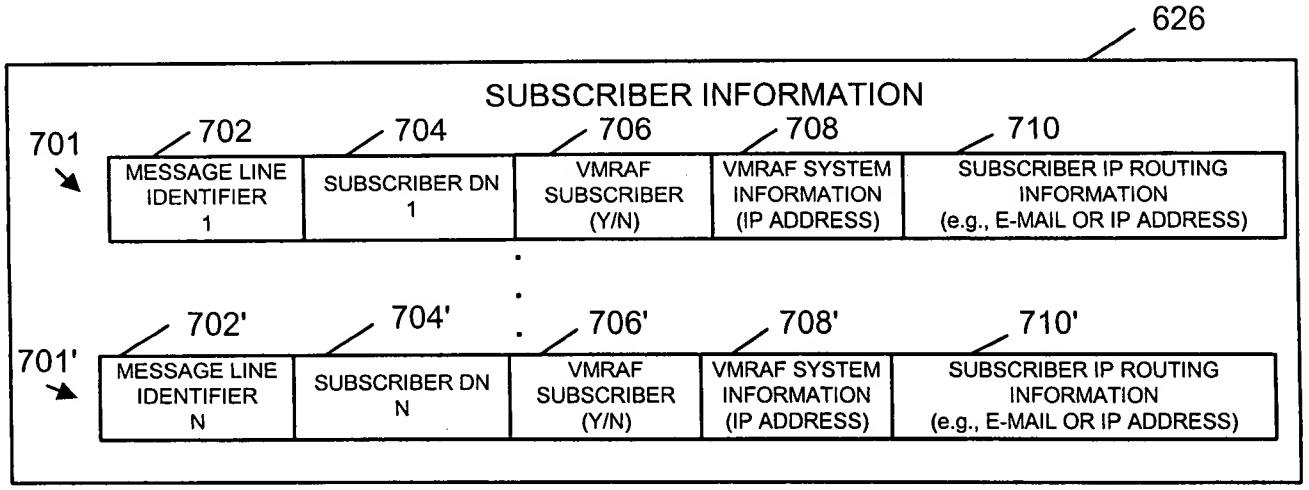


Fig. 7

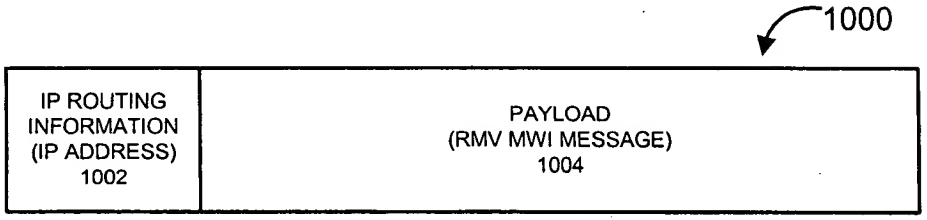


Fig. 10

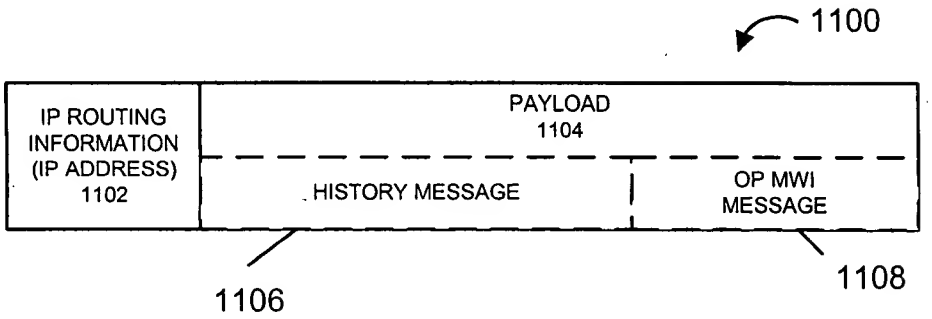
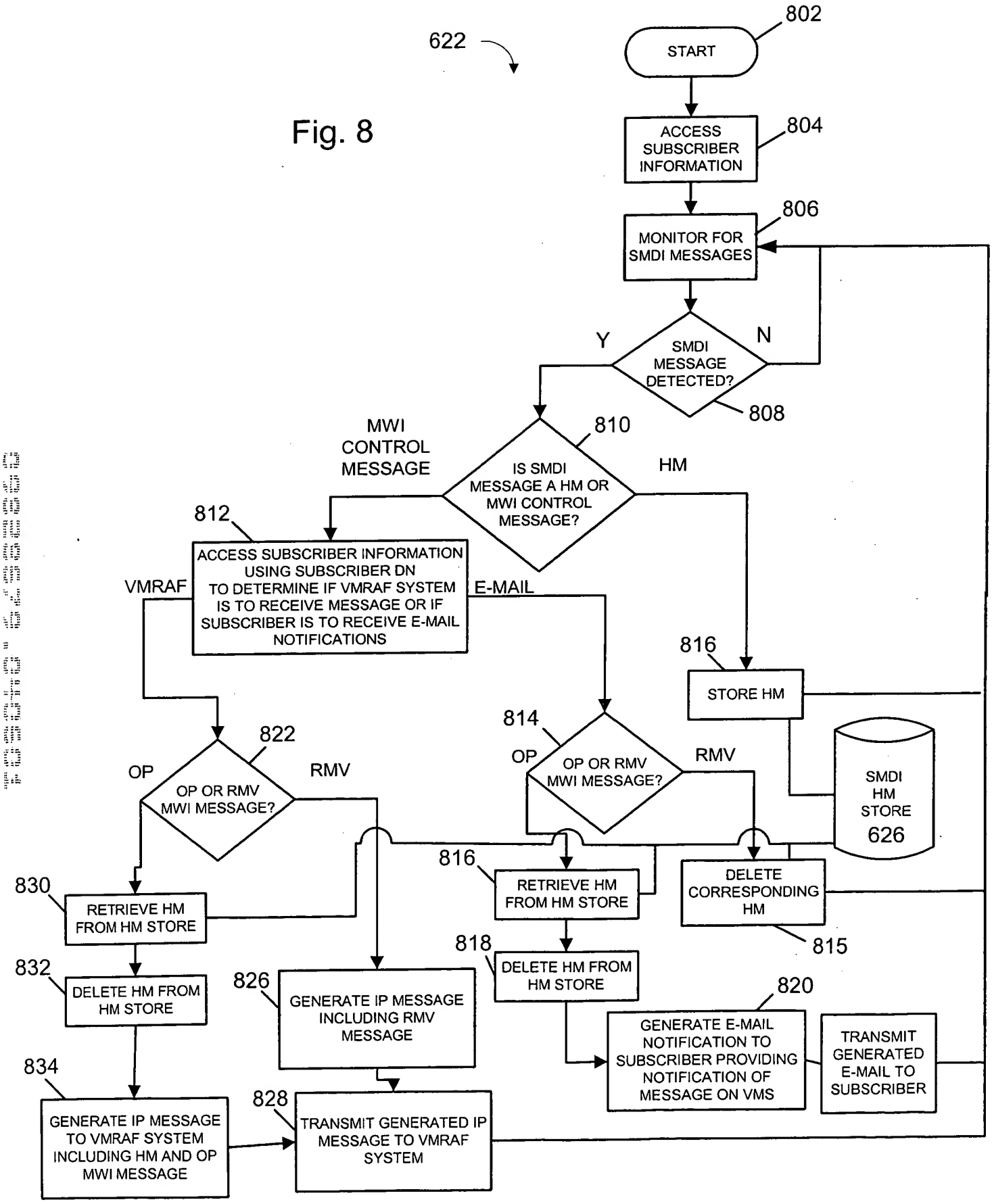


Fig. 11

Fig. 8


622
802
START
804
ACCESS SUBSCRIBER INFORMATION
806
MONITOR FOR SMDI MESSAGES
Y
N
SMDI MESSAGE DETECTED?
808
MWI CONTROL MESSAGE
810
IS SMDI MESSAGE A HM OR MWI CONTROL MESSAGE?
HM
812
ACCESS SUBSCRIBER INFORMATION USING SUBSCRIBER DN TO DETERMINE IF VMRAF SYSTEM IS TO RECEIVE MESSAGE OR IF SUBSCRIBER IS TO RECEIVE E-MAIL NOTIFICATIONS
VMRAF
E-MAIL
816
STORE HM
814
OP
OP OR RMV MWI MESSAGE?
RMV
SMDI HM STORE 626
822
OP
OP OR RMV MWI MESSAGE?
RMV
816
RETRIEVE HM FROM HM STORE
DELETE CORRESPONDING HM
815
818
DELETE HM FROM HM STORE
820
GENERATE E-MAIL NOTIFICATION TO SUBSCRIBER PROVIDING NOTIFICATION OF MESSAGE ON VMS
TRANSMIT GENERATED E-MAIL TO SUBSCRIBER
830
RETRIEVE HM FROM HM STORE
832
DELETE HM FROM HM STORE
826
GENERATE IP MESSAGE INCLUDING RMV MESSAGE
834
GENERATE IP MESSAGE TO VMRAF SYSTEM INCLUDING HM AND OP MWI MESSAGE
828
TRANSMIT GENERATED IP MESSAGE TO VMRAF SYSTEM

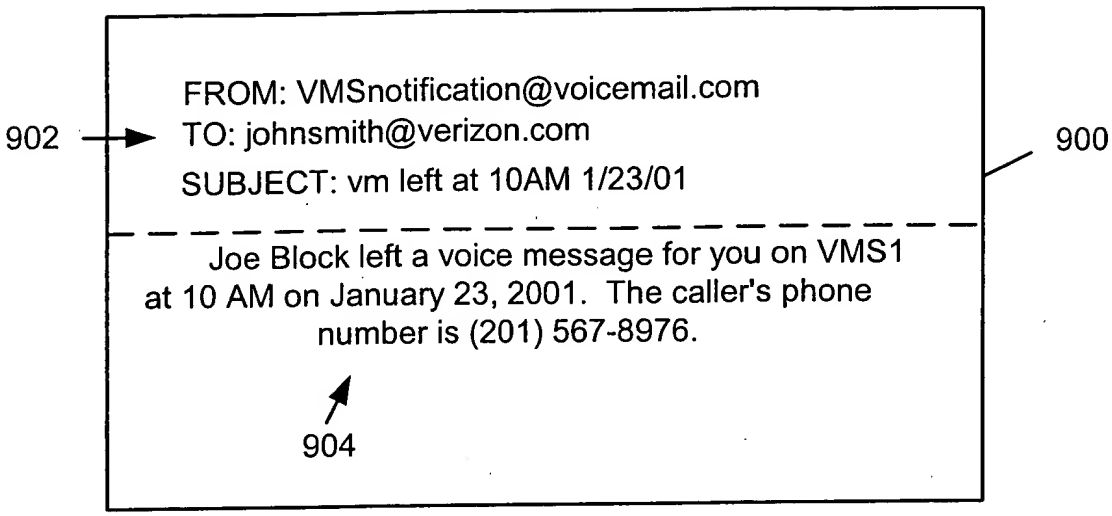

FROM: VMSnotification@voicemail.com
TO: johnsmith@verizon.com
SUBJECT: vm left at 10AM 1/23/01
Joe Block left a voice message for you on VMS1 at 10 AM on January 23, 2001. The caller's phone number is (201) 567-8976.
902
900
904

Fig. 9